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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/629,431  
Filing Date: July 29, 2003  
Appellant(s): MAGID, ROBERT MARK

John L. Rogitz (Reg.No. 33,549)  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed May 23, 2007 appealing from the Office action mailed May 17, 2007.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

5,528,753	FORTIN	6-1996
6,035,303	BAER ET AL.	7-2000
6,460,178	CHAN ET AL.	1-2002

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

(a) Claims 1, 11-14, 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fortin (US 5528753 A) in view of Baer et al. (US 6035303 A, "Baer").

(b) Claims 5-10, 15-20, 25-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fortin in view of Baer further in view of Chan et al. (US 6460178 B1, "Chan").

(c) Claims 21-30 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

***Claim Rejections***

(regenerated for completeness)

**(a) Claims 1, 11-14, 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fortin (US 5528753 A) in view of Baer et al. (US 6035303 A, "Baer").**

Claim 1

Fortin teaches a method for intercepting user exit interfaces in programs (see at least 718, 720, 722, 724 FIG.7 & associated text; 212 FIG.3 & associated text), comprising: installing a program library at a user computer as the first library in an program library concatenation, the program library including an interception routine (see at least 504 FIG.5 & associated text; 606 FIG.6A & associated text; *target routine, routine library, Exit Routine 212 col.4:17-65; instrumentation library 504, exit routines col.5:20-30*); dynamically loading an interface routine (see at least 506 FIG.5 & associated text; 702, 704 FIG.7 & associated text; *target routine, routine library, exit points, Exit Routine 212 col.4:17-65*); and wherein the interception routine communicates with the interface routine to resolve name ambiguity and enable simultaneous use of a single exit (see at least 706, 720, 722 FIG.7 & associated text; *appropriate common user specific exit routines, demultiplexor, single exit routine, available routines col.5:45-60; col.6:19-67*).

Fortin does not expressly disclose said programs as IMS programs and said server as IMS server. However, Baer teaches storing routines in a IMS program library (see at least 110, 140 FIG.1 & associated text; 210-270 FIG.2 & associated text; *information management system, digitized data, functions, procedures, distributed objects, library*

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*server 110, library catalog 140* col.1:10-67) and loading the interface routine at the IMS server wherein the interface routine communicates with the other routines in the library to resolve name ambiguity and enable simultaneous use of a single exit by plural users (see at least *API functions, digital library, mapping, table name, column name* col.4:28-col.5:40; FIG.3C & associated text; 130, 131 FIG.1 & associated text). Fortin and Baer are analogous art because they are both directed to storing routines in program library which is accessible to calling routines at runtime. It would have been obvious to one of ordinary skill in the pertinent art at the time the invention was made to incorporate the teaching of Baer into that of Fortin for the inclusion of IMS programs and IMS server. And the motivation for doing so would have been to make access of library objects (i.e., common exit routines) available to multiple users as well as allowing the users to store and retrieve said objects (see at least Baer *distributed objects, information management system, digitized data* col.1:10-3:15). Fortin as modified by Baer further teaches passing control from an IMS program at the IMS system server to the interface routine (see at least col.5:45-60; col.6:19-67). Fortin as modified by Baer further teaches receiving (i.e., passing) control at the interception (i.e., exit) routine from the IMS program (see at least col.5:45-60; col.6:19-67). Fortin further teaches establishing the interception routine as a user exit routine (see at least *target routine, routine library, Exit Routine 212* col.4:17-65).

Claim 11

Claim recites a system version of the method addressed in claim 1, therefore, is rejected for the same reasons as cited in claim 1.

Claims 12-14, 21-24

Claims recite limitations, which have been addressed in claims 1-4, therefore, are rejected for the same reasons as cited in claims 1-4.

**(b) Claims 5-10, 15-20, 25-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fortin in view of Baer further in view of Chan et al. (US 6460178 B1, "Chan").**

Claim 5

The rejection of base claim 4 is incorporated. Fortin and Baer do not expressly disclose obtaining the name of each library in an IMS program library concatenation at the interception routine. However, Chan teaches obtaining the name of each library in a program library concatenation at the interception routine (see at least FIG.4A & associated text; *existing programs, name of library 401, shadow libraries 412, 413* col.10:13-30). Chan and Fortin are analogous art because they are both directed to maintaining program library containing routines. It would have been obvious to one of ordinary skill in the pertinent art at the time the invention was made to incorporate the teaching of Chan into that of Fortin for the inclusion of obtaining the name of each library. And the motivation for doing so would have been to enable the addition of new

libraries by the same names (for the purpose of code instrumentation and optimization) without modifying external applications (i.e., programs and code) that rely on said libraries (see at least Chan col.10:13-55).

#### Claim 6

The rejection of base claim 5 is incorporated. Chan further teaches dynamically allocating each library in the IMS program library concatenation as a separately accessible file at the interception routine (see at least FIG.4B & associated text).

#### Claims 15-16, 25-26

Claims recite limitations, which have been addressed in claims 5-6, therefore, are rejected for the same reasons as cited in claims 5-6.

#### Claim 7

The rejection of base claim 6 is incorporated. Fortin further teaches determining of any of the libraries includes a load module with the same name as the interface routine; and flagging a first block of a matching load module as a "candidate user-exit." (see at least FIG.3 & associated text; FIG.7 & associated text).

#### Claim 8

The rejection of base claim 7 is incorporated. Fortin further teaches comparing a "candidate user-exit" load module to a predetermined interception routine "eye-catcher";



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and treating a non-matching "candidate user-exit" load module as a user exit routine (see at least FIG.3 & associated text; FIG.7 & associated text).

Claims 9-10, 17-20, 27-30

Claims recite limitations, which have been addressed in claims 1-8, therefore, are rejected for the same reasons as cited in claims 1-8.

**(c) Claims 21-30 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.**

Claim 21

Merely recited as "A computer program *device* ... comprising: *logic means* for ...", the claim does not limit the *device*, which represents the computer program, and is not a computer programmed device, i.e., a device has been programmed with computer program/software (Emphasis added), to a statutory machine which contains physical components since the *logic means*, as claimed, is clearly not a physical component nor is it equivalent to "executable means" in a *computer-readable medium* claim. Even if said device had been claimed to be "A computer programmed device", such a "device" is would still be nonstatutory because, as claimed, the device that only contains logic means merely amounts to software *per se*. See MPEP-2106 (I).

Claims 22-30

They are also rejected for failing to remedy the deficiency of rejected base claim 21.

## **(10) Response to Argument**

### **a(1). Obviousness Rejections, Claim 1**

- Appellant contrasts monitoring software programs (i.e., collecting performance statistics) that are disclosed by Fortin with the claims (Brief, page 4, last paragraph).

However, as established in the Office Action (page 3), it is respectfully submitted that while Fortin has a different purpose for the exit routine (e.g., “collecting performance statistics”), “collecting performance statistics” is not excluded from the plain language of the claims.

- Appellant essentially argues, “Nowhere does Fortin address the topic of enabling a single exit to be used by multiple users” (Brief, page 5, last paragraph).

However, this argument appears to be based on a piecemeal analysis of the Fortin reference alone when the rejection is, in fact, based on the combination of Fortin and Baer. As established in the Office Action (pages 7-8), FIG.7 of Fortin discloses a Call to Target Routine TR1 (e.g., Interface Routine) at **702**. Since the Target Routine is in its executable form (see at least *stripped object* col.2:41-44; col.2:60-64; col.3:22-25) at the time of instrumentation and/or monitoring, it's clear that

the Target Routine (e.g., Interface Routine) is dynamically loaded at its invocation **702**. FIG.7 of Fortin clearly discloses passing (**718**) the execution control from the Exit Section of the Target Routine TR1 to the Common Exit Code (e.g., Interception Routine), which resides in the Instrumentation Library (e.g., program library). It should be noted that the purpose of the Common Exit Code is to *intercept* an invocation from a Target Routine TR1 (which is to be monitored) and invokes/executes (**720**) user supplied Exit Routine to collect data about the Target Routine TR1, i.e., monitor the Target Routine TR1, before returning the execution control (**724**) from the Common Exit Code to the Target Routine TR1. Thus, it's clear that the Common Exit Code (e.g., Interception Routine) communicates with the Target Routine TR1 (e.g., Interface Routine). Furthermore, col.6:26-29 of Fortin explicitly discloses that the Common Exit Code "is provided as common code in a single shared copy. Thus, a large number of routines can be instrumented" (Emphasis added). In other words, the Common Exit Code clearly teaches a Single Exit that is used by plural Target Routines. Although Fortin does not expressly disclose said Target Routines as IMS programs/routines in an IMS server, as established in the Office Action (page 8), col.1:17-20 of Baer explicitly discloses using information management system (IMS) structures such as *Library Server 110* containing *Library Catalog 140* of FIG.1 to store and manage digitized data such as Java Objects (i.e., Procedures and/or

Routines) (see at least *Java objects, KVDs, persistent objects, object oriented languages* col.2:55-64; see also *dictionary, key value dictionary, KVD, subclass of a dictionary* col.2:33-54). FIG.2 of Baer discloses an IMS system for storing and managing Java Objects wherein the Object Vault **210** (e.g., Interception Routine) intercepts users' (e.g., library clients **130, 131** of FIG.1) requests to store, retrieve the Java Objects in the digital library **270** (e.g., library server **110** of FIG.1). It should be noted that col.2:33-57 of Baer expressly discloses identifying each Java Object with a unique key (which comprises text string(s) and object attributes (e.g., name of the Java Object)), obviously, to avoid name/identity ambiguity (Emphasis added). Thus, it would have been obvious to one of ordinary skill in the pertinent art at the time the invention was made to store Fortin's Common Exit Code and User Supplied Exit Routines in Baer's IMS server's digital library **270** (which also stores Java Objects/Routines) to enable simultaneous use of Fortin's Common Exit Code (i.e., Single Exit Routine) by plural IMS users/clients (i.e., Baer's Library Clients **130, 131**). And the motivation for doing so would have been facilitate the persistence of distributed objects (Baer col.1:5-50).

- Appellant similarly argues, 'part of col.5 of Fortin discloses that an "entry is provided **for each target routine**", lines 48-49, and that a single entry and single exit routine are selected from plural routines,

lines 53-55' (Emphasis from original) teaches 'the opposite of multiple target routines using a single exit' (Brief, page 6, first ongoing paragraph).

However, the Examiner respectfully submits that Appellant has quoted Fortin out of context since the quote text above is part of the complete paragraph (col.5:48-51), which is presented below for clarity:

"A demultiplexor entry (demux-entry) is provided for each target routine. The demultiplexor entry serves to direct an instrumentation call to the appropriate **common** and user specific entry and **exit routines**."

(Emphasis added)

In other words, the demux-entry, is inserted in each Target Routine TR1 to serve as a branching instruction that transfers execution control from the Target Routine TR1 to the Common (Single) Exit Code, as has been discussed above. Thus, argument is not persuasive.

#### **a(2). Obviousness Rejections, Claims 11 and 22**

The response to arguments above apply mutatis mutandis to independent Claims 11 and 21, which nonetheless stand apart from Claim 1. The rejections are maintained.

#### **b. Obviousness Rejections, Claims 5-10, and 25-30**

- Appellant further argues that Fortin does not teach comparing a “candidate user-exit” load module to a predetermined interception routine “eye-catcher” and treating a non-matching “candidate user-exit” load module as a user exit routine (Brief, page 7, last paragraph).

However, FIG.6A of Fortin discloses computing and retrieving the Address for [User Supplied] Exit Instrumentation Routine. Furthermore, FIG.7 of Fortin discloses the Instrumentation Library storing the Common Exit Code, User Supplied Entry Instrumentation Routines, and User Supplied Exit Instrumentation Routines. It is respectfully submitted that without comparing the User Supplied Instrumentation Routine (i.e., “candidate user-exit”) to a predetermined interception routine ‘eye catcher’ (e.g., either Common Exit Code or the User Supplied Entry Instrumentation Routines in the Instrumentation Library of FIG.7), it would be impossible for the demux-entry of FIG.6A to select (i.e., treating the “candidate user-exit” as a user exit routine) and compute the right address for the Exit Instrumentation Routine.

**c. Section 101 Rejection**

- Appellant further argues that the 101 rejection of claims 21-30 “fails to comprehend that claim 21 must be interpreted in accordance with the principles of 35 USC 112, sixth paragraph, invoking means-plus-function language” (Brief, page 8, last paragraph).

However, it is respectfully submitted that the “logic means” as recited in claims 21-30 is limited to logic, i.e., programming logic/code and/or software *per se*, which is not the same as “physical means”, i.e., hardware and/or physical components. As such, a computer program device (i.e., hardware) that is merely claimed to contain only logic means (i.e., software *per se*), without any actual physical component, is a nonstatutory under section 101. In response to Appellant’s assertion that “the present specification on page 4 plainly states that the logic of the present invention can be contained on a data storage device with a computer readable medium” (Emphasis added) (Brief, page 8 last paragraph), it should be clear that the device is defined as comprising the computer readable medium, in which to store the “logic means”. In other words, as recited in claim 21, the computer program device, does not have any computer readable medium (i.e., physical means), or any other physical means to perform the logical/software steps (i.e., “logic means”) recited in the claim. Appellant further asserts that a transmitting device containing these logic means is a statutory structure (Brief, page 9). However, it should be noted that, under the current Office Policy, a transmitting device merely amounts to a carrier signal and is thus not statutory. See Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility Annex IV (c)

<<http://www.uspto.gov/web/offices/com/sol/og/2005/week47/patgupa.htm>>

- Appellant's use of strong language to address the Examiner's position (see at least "evidently unwilling examiner", "deliberately shut ears" on Brief, page 5, 2<sup>nd</sup> to last paragraph) has been noted. However, the Examiner does not wish to address such language.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.



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For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Chrystine Pham

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